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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,036	10/29/2008	Jean-Michel Combe	82096382	9253
22879	7590	10/17/2011		
HEWLETT-PACKARD COMPANY Intellectual Property Administration 3404 E. Harmony Road Mail Stop 35 FORT COLLINS, CO 80528			EXAMINER DAVIS, TONY O	
			ART UNIT 2629	PAPER NUMBER
			NOTIFICATION DATE 10/17/2011	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/587,036	Applicant(s) COMBE, JEAN-MICHEL	
	Examiner TONY DAVIS	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 1-20 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 1-20 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on 24 July 2006 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-12 and 19-20 have been considered but are moot in view of the new ground(s) of rejection.
2. Regarding applicant argument, 'As one example, independent claim 13 recites the pen has a processor having software adapted to associate time signals with the pen position data and to evaluate pen position with time to determine when a user has finished marking a first physical page and begins marking a second physical page having the same pattern, and to either: (i) create a page end marker in the pen-captured data; or (ii) store pen-acquired data from different physical pages, each having the same pattern, in different electronic files in the memory of the pen. The examiner admits that "Tokunaga fails to teach or suggest" these recitations (see OA mailed 05/11/2011 on pages 2-3). This admission shows that the examiner has failed to establish a prima facie case to reject claim 13 with Tokunaga', examiner respectfully disagrees.

Claim limitation cites 'the pen has a processor having software adapted to associate time signals with the pen position data and to evaluate pen position with time to determine when a user has finished marking a first physical page and begins marking a second physical page having the same pattern, and to either: (i) create a page end marker in the pen-captured data; or (ii) store pen-acquired data from different physical

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pages, each having the same pattern, in different electronic files in the memory of the pen.'

It is well known to one of ordinary skill in the art the processor as taught by Tokunaga is well capable of possessing an oscillator/clock adapted to produce time signals, see paragraph 6, 'In other words, a locus of character and/or graphics, which has been handwritten in the paper 102, is obtained in digitalized form. The digitalized locus information is accumulated in the memory 207 in **chronological order**, and at certain timing, it is transmitted to predetermined equipment by the communication unit 209'. Clearly paragraph 6 discloses processing digital data in chronological order. Further, Tokunaga teaches in paragraph 6, '**Only when the pen pressure sensor 205 senses a pressure**, the camera 203 reads the dot pattern, and the processor 206 obtains positional information of the pen tip'. One of ordinary skill in the art would reasonably interpret the statement as teach software related to the processor and camera have software adapted to associate time signals with pen position. Tokunaga doesn't limit his device to merely evaluate pen position with time to determine when a user has finished marking a **first physical page** and begins marking a **second physical page**. Paragraph 6 teaches 'Only **when the pen pressure sensor 205 senses a pressure**, the camera 203 reads the dot pattern, which is stored in memory in chronological order. Paragraph 8 teaches, 'Accordingly, an **identical dot pattern** should be **used for plural sheets of paper**. In this case however, **there is a problem that it is out of recognition in which paper the data entry has been made**'.

Paragraph 57 teaches, 'Subsequently, the digitalized data recorded in the memory 207

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is transmitted from the communication unit 209 to the communication device 107 via the network 119'. Paragraph 6 and 57 teaches at some point the pen stops recording data in any of the absolute coordinate space signifying a page among a plurality of pages and the data is transmitted via the network to the computer for display. One of ordinary skill in the art would reasonably interpret one of the plurality of data transmissions would eventually have the last data to be recorded signifying end of page. In addition, paragraph 8 teaches plural sheet of paper having an identical pattern which has to be discerned which paper the data entry has been made. As such, one of ordinary skill in the art would reasonably interpret the teachings of paragraphs 6, 8, and 57 as teaching having the same pattern (dot pattern per plural sheet of paper) and having software (via camera 203, memory 207 and data transmission over network 119, and/or computer 103) adapted to associate time signals with the pen position data (paragraph 6) and to evaluate pen position with time to determine when a user has finished marking a first physical page and begins marking a second physical page having the same pattern (paragraph 6 and 8), and to **either**: (i) create a page end marker in the pen-captured data; or (ii) **store pen-acquired data from different physical pages, each having the same pattern, in different electronic files in the memory of the pen** (paragraph 6 and 8). As such, rejection of claim 13 and all depending claims stand, Applicant is urged to use stronger claim language to overcome current prior art of record.

Claim Rejections - 35 USC § 103

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3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tokunaga et al. (US 2004/0160430),** hereinafter referred to as Tokunaga.

Regarding claim 13, Tokunaga teaches A digital pen (electronic pen 101 of fig 1-2) adapted for use with a page (paper 102 of fig 1-2) of position-determining pattern (paragraph 5 and 30, fig 1-2), the pen having: a (207 of fig 2) memory (paragraph 6, fig 2); a pattern position capturer (camera 203 of fig 2) adapted to capture data relating to the position of the pen in relation to a said pattern and to store pen position data in a memory (paragraph 6, fig 2); and wherein the pen has a processor (processor 206 of fig 2) having software adapted to associate time signals with the pen position data and to evaluate pen position with time to determine when a user has finished marking a first physical page and begins marking a second physical page having the same pattern, and to either: (i) create a page end marker in the pen-captured data; or (ii) **store (in memory 207 of fig 2) pen- acquired data from different physical pages (paragraph 75), each having the same pattern (see figs 3-6 and 8A-12), in different electronic files in the memory of the pen (see paragraph 55-57 describe digitalization).**

Tokunaga fails to explicitly teach or suggest A digital pen having: **a clock** adapted to produce time signals; and wherein the pen has a processor having software adapted to associate time signals with the pen position data and to evaluate pen position with time

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to determine when a user has finished marking a first physical page and begins marking a second physical page having the same pattern, and to either: (i) create a page end marker in the pen-captured data; or (ii) store pen-acquired data from different physical pages, each having the same pattern, in different electronic files in the memory of the pen.

It is well known to one of ordinary skill in the art the processor as taught by Tokunaga is well capable of possessing an oscillator/clock adapted to produce time signals, see paragraph 6, 'In other words, a locus of character and/or graphics, which has been handwritten in the paper 102, is obtained in digitalized form. The digitalized locus information is accumulated in the memory 207 in **chronological order**, and at certain timing, it is transmitted to predetermined equipment by the communication unit 209'. Clearly paragraph 6 discloses processing digital data in chronological order. Further, Tokunaga teaches in paragraph 6, '**Only when the pen pressure sensor 205 senses a pressure**, the camera 203 reads the dot pattern, and the processor 206 obtains positional information of the pen tip'. One of ordinary skill in the art would reasonably interpret the statement as teach software related to the processor and camera have software adapted to associate time signals with pen position. Tokunaga doesn't limit his device to merely evaluate pen position with time to determine when a user has finished marking a **first physical page** and begins marking a **second physical page**. Paragraph 6 teaches 'Only when the pen pressure sensor 205 **senses a pressure**, the camera 203 reads the dot pattern, which is stored in memory in chronological order. Paragraph 8 teaches, 'Accordingly, an **identical dot pattern**

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should be **used for plural sheets of paper**. In this case however, **there is a problem that it is out of recognition in which paper the data entry has been made**'.

Paragraph 57 teaches, 'Subsequently, the digitalized data recorded in the memory 207 is transmitted from the communication unit 209 to the communication device 107 via the network 119'. Paragraph 6 and 57 teaches at some point the pen stops recording data in any of the absolute coordinate space signifying a page among a plurality of pages and the data is transmitted via the network to the computer for display. One of ordinary skill in the art would reasonably interpret one of the plurality of data transmissions would eventually have the last data to be recorded signifying end of page. In addition, paragraph 8 teaches plural sheet of paper having an identical pattern which has to be discerned which paper the data entry has been made. As such, one of ordinary skill in the art would reasonably interpret the teachings of paragraphs 6, 8, and 57 as teaching having the same pattern (dot pattern per plural sheet of paper) and having software (via camera 203, memory 207 and data transmission over network 119, and/or computer 103) adapted to associate time signals with the pen position data (paragraph 6) and to evaluate pen position with time to determine when a user has finished marking a first physical page and begins marking a second physical page having the same pattern (paragraph 6 and 8), and to either: (i) create a page end marker in the pen-captured data; or (ii) store pen-acquired data from different physical pages, each having the same pattern, in different electronic files in the memory of the pen (paragraph 6 and 8).

However, Tokunaga teaches A computer having an electronic pen (101 of fig 2) having: a clock (via processor 206 of fig 2) adapted to produce time signals (paragraph

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6, fig 6 and 1); and wherein the computer has a processor (206 of fig 1) having software adapted to associate time signals with the pen position (dot pattern to be identified exhibited in fig 5 or coordinate string data exhibited in fig 6) data (paragraph 32 and 35, fig 5-6) and to evaluate pen position (via document identifying means 118 of fig 1) with time to determine when a user has finished marking a first physical page and begins marking a second physical page having the same pattern (paragraph 59, 36, and 56, fig 1 and 12), and to either: (i) create a page end marker in the pen-captured data; or (ii) store pen- acquired data from different physical pages, each having the same pattern, in different electronic files in the memory of the (memory 207 of fig 2 of fig 1) computer (paragraph 6, 60, 43, 63, and 56, fig 1 and 12).

Tokunaga teaches the claimed invention except A digital pen having: a clock adapted to produce time signals; and wherein the pen has a processor having software adapted to associate time signals with the pen position data and to evaluate pen position with time to determine when a user has finished marking a first physical page and begins marking a second physical page having the same pattern, and to either: (i) create a page end marker in the pen-captured data; or (ii) store pen-acquired data from different physical pages, each having the same pattern, in different electronic files in the memory of the pen. Tokunaga teaches it is well known in the art to one of ordinary skill in the art at the time of the invention A computer having: a clock adapted to produce time signals; and wherein the computer has a processor having software adapted to associate time signals with the pen position data and to evaluate pen position with time to determine when a user has finished marking a first physical page and begins marking

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a second physical page having the same pattern, and to either: (i) create a page end marker in the pen-captured data; or (ii) store pen-acquired data from different physical pages, each having the same pattern, in different electronic files in the memory of the computer.

Therefore, it would've been obvious to one of ordinary skill in the art at the time of the invention to modify the digital pen as taught by Tokunaga by incorporating the digital pen having a clock through routine work in the art.

5. **Claim 1-12 and 14-20 are rejected** under **35 U.S.C. 103(a)** as being **unpatentable over Tokunaga et al. (US 2004/0160430)**, hereinafter referred to as Tokunaga, **in view of Bryborn et al. (US 2003/0107558)**, hereinafter referred to as Bryborn.

Regarding claim 1, Tokunaga teaches A method of producing an electronic document (paper 102 of fig 1-2) using a plurality of pieces of physical media (paper 102 of fig 1-2) having a common position location pattern (identical dot pattern, see paragraph 8) marked thereupon (paragraph 8), comprising the steps of: (i) marking (via applying pressure to sensor 205) a first piece of the physical media using a digital pen (paragraph 6), said pen being arranged to acquire data to enable the determination of the location of a tip thereof upon physical media from the position location pattern marked thereupon (paragraph 5-6); (ii) acquiring (via camera 203) data relating to strokes and the location of the strokes of the pen upon the first piece of the physical media sequentially (paragraph 5-6), and storing said data in a memory (paragraph 6);

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(iii) acquiring data relating to strokes and the location of the strokes of the pen upon a second piece of the physical media sequentially (paragraph 8, and 5-6), and storing said data in a memory (paragraph 6); (iv) arranging the data stored in steps (ii) and (iii) to form at least one electronic document in which the data relating to the first piece of physical media is distinguishable from the data relating to the second piece of physical media (paragraph 57, 6 , and 8). **However, Tokunaga fails to explicitly teach** (v) creating a page division marker in pen-acquired data by making a gesture with the pen upon the first page of physical media indicative of termination of use of the first page of a document.

In a similar field of endeavor, Bryborn discloses Electronic pen and method for recording of handwritten information. **In particular, Bryborn teaches** (v) creating a page division marker (page break via second type pen stroke) in pen-acquired data by making a gesture (second type pen stroke) with the pen upon the first page of physical media indicative of termination of use of the first page of a document (paragraph 108 and 107).

Tokunaga explicitly teaches the claimed invention except (v) creating a page division marker in pen-acquired data by making a gesture with the pen upon the first page of physical media indicative of termination of use of the first page of a document. Bryborn teaches it is well known in the art to one of ordinary skill in the art at the time of the invention (v) creating a page division marker in pen-acquired data by making a gesture with the pen upon the first page of physical media indicative of termination of use of the first page of a document.

Therefore, it would've been obvious to one of ordinary skill in the art at the time of the invention modifying the teachings of Tokunaga by incorporating the teachings of Bryborn for the purpose of increased data management.

Regarding claim 19, Tokunaga teaches Software, optionally encoded upon a machine-readable storage medium, which when executed upon a processor causes the processor to: (i) receive a first signal, indicative of the position of a pen upon a first piece of physical media having printed thereupon a position location pattern that is common with a second piece of physical media (paragraph 56, 52, and 61, fig 1 and 12); (ii) receive a second signal indicative of strokes, and the location of said strokes, of the pen upon the second piece of physical media (paragraph 56, 52, and 61, fig 1 and 12); and (iii) use the first and second signals to produce a digital document media (paragraph 56, 52, and 61, fig 1 and 12). **However, Tokunaga fails to explicitly teach** (iv) create an end of electronic document division marker in pen- acquired data by making a gesture with the pen upon the first piece of physical media, the gesture coding for an end of electronic document_signal.

In a similar field of endeavor, Bryborn discloses Electronic pen and method for recording of handwritten information. **In particular, Bryborn teaches** (iv) create an end of electronic document division marker (page break second type pen stroke) in pen-acquired data by making a gesture (second type pen stroke) with the pen upon the first piece of physical media, the gesture coding for an end of electronic document_signal (paragraph 108 and 107).

Tokunaga explicitly teaches the claimed invention except (iv) create an end of electronic document division marker in pen- acquired data by making a gesture with the pen upon the first piece of physical media, the gesture coding for an end of electronic document_signal. Bryborn teaches it is well known in the art to one of ordinary skill in the art at the time of the invention (iv) create an end of electronic document division marker in pen- acquired data by making a gesture with the pen upon the first piece of physical media, the gesture coding for an end of electronic document_signal.

Therefore, it would've been obvious to one of ordinary skill in the art at the time of the invention modifying the teachings of Tokunaga by incorporating the teachings of Bryborn for the purpose of increased data management.

Regarding claim 14, Tokunaga teaches A pen according to claim 13 wherein the processor has software adapted to store pen-acquired data in a first memory (memory 207 of fig 2) of the pen and to transfer the data to a file in a second, protected, memory (storage unit 109 of fig 1) of the pen upon the determination of a page end (paragraph 57 and 61, fig 1 and 12).

Regarding claim 15, Tokunaga teaches a pen according to claim 14 wherein the processor has software adapted to erase the first memory pursuant to transfer of pen-acquired data previously stored there to the protected memory (paragraph 57, fig 1).

Regarding claim 16, Tokunaga teaches A pen according to claim 13 in which the processor has software adapted to cause the pen-acquired data relating to successive physical pages, each having the same pattern, to be stored in either: (i) the

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same file in memory; or (ii) different respective files, one per physical page, in (storage unit 109 or layout display means 115 both of fig 1) memory (paragraph 63, fig 1 and 12).

Regarding claim 17, Tokunaga teaches A pen according to claim 14 in which the processor has software adapted to cause the pen-acquired data relating to successive physical pages, each having the same pattern, to be stored in either: (i) the same file in memory; or (ii) different respective files, one per physical page, in memory (paragraph 63, fig 1 and 12).

Regarding claim 18, Tokunaga teaches A pen according to Claim 15 in which the processor has software adapted to cause the pen-acquired data relating to successive physical pages, each having the same pattern, to be stored in either: (i) the same file in memory; or (ii) different respective files, one per physical page, in memory (paragraph 63, fig 1 and 12).

Regarding claim 2, Tokunaga teaches the method of claim 1 wherein the first and second pieces of physical media are sheets or pages (paper 102 of fig 1, paragraph 8).

Regarding claim 3, Tokunaga teaches the method of claim 1 wherein the first and second pieces of physical media are sheets or pages (paragraph 8). **However, Tokunaga fails to explicitly teach** creating an end of electronic document division marker in pen-acquired data by making a gesture with the pen upon a page, the gesture coding for an end of electronic document signal.

Bryborn teaches creating an end of electronic document division marker (page break second type pen stroke) in pen-acquired data by making a gesture (second type

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pen stroke) with the pen upon a page, the gesture coding for an end of electronic document signal (paragraph 108 and 107).

Therefore, it would've been obvious to one of ordinary skill in the art at the time of the invention modifying the teachings of Tokunaga by incorporating the teachings of Bryborn for the purpose of increased data management.

Regarding claim 4, Tokunaga teaches The method of claim 2 comprising using a processor to identify the marker and closing a first file in memory associated with the first page or document pursuant to recognition of the page or document division marker (paragraph 61 and 6, fig 12).

Regarding claim 6, it is rejected for the same rationale as the rejection of claim 14.

Regarding claim 5, it is rejected for the same rationale as the rejection of claim 15.

Regarding claim 7, Tokunaga teaches the method of claim 6 wherein the protected memory is in the pen (paragraph 6, fig 2)

Regarding claim 8, Tokunaga teaches the method of claim 6 comprising clearing the short term memory before the commencement of step (iii) (paragraph 57 and 6, fig 1).

Regarding claim 9, Tokunaga teaches the method of claim 1 comprising associating a time stamp with the position of the pen relative to the pattern (paragraph 61 and 6).

Regarding claim 10, Tokunaga teaches the method of claim 9 wherein step (iv) comprises arranging the data stored in steps (ii) and (iii) in order of the time stamp (paragraph 57 and 6).

Regarding claim 11, Tokunaga teaches the method of claim 1 comprising partitioning pen-acquired data into different files prior to transmitting the data off-pen (paragraph 6, 57, and 61).

Regarding claim 12, Tokunaga teaches The method of claim 1 comprising transferring the data stored in steps (ii) and (iii) to a remote, off-pen, processor unit prior to step (iv) (paragraph 30, fig 1).

Regarding claim 20, Tokunaga teaches Software according to claim 19 which causes the processor to separate data derived from the first and second signals into separate memory files (paragraph 63, fig 1 and 12).

Conclusion

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TONY DAVIS whose telephone number is (571)270-5586. The examiner can normally be reached on M-Th 7:30 a.m.-6 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Quan-Zhen Wang can be reached on 571-272-3114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. D./
Examiner, Art Unit 2629

/Quan-Zhen Wang/
Supervisory Patent Examiner, Art Unit 2629